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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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SCHERING-PLOUGH CORPORATION  
PATENT DEPARTMENT (K-6-1, 1990)  
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EXAMINER

KWON, BRIAN YONG S

ART UNIT	PAPER NUMBER
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1614

DATE MAILED: 03/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/021,189

Applicant(s)

HARRIS ET AL.

Examiner

Brian S Kwon

Art Unit

1614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) 8,9,16,17,26,27 and 36-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,10-15,18-25 and 28-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1614

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-7, 10-15, 18-25 and 28-35, drawn to a method of treating and/or preventing a cardiovascular disease, comprising administering an effective amount of an antihistamine alone.
  - II. Claims 8-9, 16-17, 26-27, 36-37, 38-51, drawn to a method of treating and/or preventing a cardiovascular disease, comprising administering an effective amount of combination of an antihistamine and a leukotriene antagonist.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

2. During a telephone conversation with Robert J. Lipka on February 5, 2003 a provisional election was made to prosecute the invention of Group I, claims 1-7, 10-15, 18-25 and 28-35. Affirmation of this election must be made by applicant in replying to this Office action. Claims 8-9, 16-17, 26-27 and 36-51 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

Art Unit: 1614

remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-7, 10-15, 18-25 and 28-35 are rejected under 35 USC 112, first paragraph, because the specification while being enabling for treating a cardiovascular disease in human suffering from an allergic and/or inflammatory condition of the skin or upper airway passage, does not reasonably provide enablement for the term “preventing a cardiovascular in a human...”. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

The instant specification discloses the activity of desloratadine in attenuating eosinophil chemotaxis, adhesion and superoxide generation in vitro study (Example). However, the applicant’s study on the modulation of eosinophil recruitment and function by desloratadine in vitro study fails to provide enabling disclosure for the claimed prophylactic use of antihistamine. The specification does not have sufficient direction or guidance on how to prevent cardiovascular disease in patients presented with the symptoms of an allergic and/or inflammatory condition of the skin or upper airway passages. Considering the state of the prior art and the relative skill of the artisan, it was not known to prevent cardiovascular diseases in patients presented with the claimed condition other than the method of treating cardiovascular condition (e.g., shock, stroke,

Art Unit: 1614

myocardial infarction, arteriosclerosis) with or without the presence of allergic or inflammatory condition. The specification disclosure is insufficient to enable one skilled in the art to practice the invention without undue amount of experimentation. Attention is directed to *In re Wands*, 8 USPQ 1400 (CAFC 1988) at 1404 (CAFC 1988) at 1404 where the court set forth the eight factors to consider when assessing if a disclosure would have required undue experimentation. Citing *Ex parte Forman*, 230 USPQ 546 (BdApls) at 547 the court recited eight factors:

- 1) the quality of experimentation necessary,
- 2) the amount of direction or guidance provided,
- 3) the presence of absence of working example,
- 4) the nature of the invention,
- 5) the state of the prior art,
- 6) the relative skill of those in the art,
- 7) the predictability of the art, and
- 8) the breadth of the claims.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1614

5. Claims 1-7, 10-15, 18-25, 28-33 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Aberg et al. (US 5731319).

The claims 1-7, 10-15, 18-25 and 28-35 read on method where an antihistamine, namely desloratidine (=descarboethoxyloratadine), is administered to a human suffering from an allergic and/or inflammatory condition of the skin or upper airway passages to prevent a cardiovascular disease.

Aberg teaches the use of descarboethoxyloratadine for treating allergic and/or inflammatory condition of the skin or upper airway passages such as rhinitis, asthma and urticaria (abstract; column 4, lines 14-21; column 8, lines 8-17), wherein the descarboethoxyloratadine is administered in amount of from about 0.1mg to less than about 10mg per day (column 8, lines 35-41; claims 4-6).

Although the reference is silent about the claimed prophylactic use of descarboethoxyloratadine, such property must be inherently presented in the prior art method. Since the claimed dosage range having prophylactic utility overlaps with the referenced dosage range, the administration of descarboethoxyloratadine to patients suffering from an allergic and/or inflammatory condition of the skin or upper airway passages would inherently possess the claimed protective utility. Applicant's attention is directed to Ex Parte Novitski 126 USPQ 1389 (BOPA 1993) illustrating anticipation resulting from inherent use, absent a haec verba recitation for such utility.

6. Claim 34 is rejected under 35 U.S.C. 102(b) as being anticipated by Gray (US 5627183)

The claim 34 reads on method where an antihistamine is administered to a human suffering from atopic dermatitis or urticaria to prevent a cardiovascular disease.

Art Unit: 1614

Gray teaches the use of antihistamine such as cetirizine for treating seasonal and perennial allergic rhinitis, allergic asthma, atopic dermatitis and urticaria by providing an inhibitory action on eosinophilia and eosinophil chemotaxis (column 4, lines 43-62), wherein the cetirizine is administered in amount of from about 1.0mg to about 25mg/daily (column 6, lines 30-40).

Although the reference is silent about the claimed prophylactic use of cetirizine, such property must be inherently presented in the prior art method. Since the claimed dosage range having prophylactic utility overlaps with the referenced dosage range, the administration of cetirizine to patients suffering from an allergic and/or inflammatory condition of the skin or upper airway passages would inherently possess the claimed protective utility. Applicant's attention is directed to Ex Parte Novitski 126 USPQ 1389 (BOPA 1993) illustrating anticipation resulting from inherent use, absent a haec verba recitation for such utility.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

Art Unit: 1614

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-2, 7, 10-11, 18-19, 28-29 and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (US 5627183) in view of applicant's admitted prior art of the record (page 2, lines 4-7 (Hospes, et al., Am. J. Epidemiol., Vol. 150. (No. 5), pp. 482-491, 1999)).

Gray teaches or suggests the use of antihistamine such as cetirizine for treating seasonal and perennial allergic rhinitis, allergic asthma, atopic dermatitis and urticaria by providing an inhibitory action on eosinophilia and eosinophil chemotaxis (column 1, lines 19-22; column 2, lines 61-65; column 3, lines 19-34; column 4, lines 43-62; column 6, lines 25-60).

Applicant's admitted prior art of the record discloses that eosinophilia is associated as an additional risk factor in death from cardiovascular diseases including ischemic heart disease and cerebrovascular disease.



Art Unit: 1614

The teaching of Gray differs from the claimed invention in the use of antihistamine such as certirizine for treating a cardiovascular disease, namely in a human suffering from an allergic and/or inflammatory condition of the skin or upper airway passages. To incorporate such teaching into the teaching of Gray, would have been obvious in view of Applicant's admitted prior art (Hospes, et al., Am. J. Epidemiol., Vol. 150. (No. 5), pp. 482-491, 1999) that teaches or suggests the correlation between the occurrence of cardiovascular diseases and eosinophilia.

One having ordinary skill in the art would have expected as taught by the applicant's admitted prior art that a cardiovascular disease is caused or contributed to by eosinophilia, and would be motivated to employ antihistamine such as certirizine to treat cardiovascular disease associated in a human suffering from an allergic and/or inflammatory condition of the skin or upper airway passages (e.g., seasonal allergic rhinitis, perennial allergic rhinitis, atopic dermatitis, urticaria and allergic asthma). One having ordinary skill in the art would have been motivated to make such modification to extend the usage of antihistamine such as certirizine to accommodate needs where the risk of cardiovascular disease associated with allergic and/or inflammatory conditions would greatly reduced.

8. Claims 3-6, 12-15, 20-25 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (US 5627183) in view of applicant's admitted prior art of the record (page 2, lines 4-7 (Hospes, et al., Am. J. Epidemiol., Vol. 150. (No. 5), pp. 482-491, 1999)) and Aberg et al. (US 5731319), and if necessary further in view of Kreutner et al. (US 5869479).

Art Unit: 1614

The modified method of Gray includes all that is recited in claims 3-6, 12-15, 20-25 and 30-33 except the method wherein desloratadine is administered to said human from an allergic and/or inflammatory condition of the skin or upper airway passages at the specific dosage amount.

Aberg teaches or suggests the use of desloratadine (=descarboethoxyloratadine) for treating allergic disorders including urticaria and allergic rhinitis.

Kreutner discloses desloratadine and cetirizine as a H1 receptor antagonist.

One having ordinary skill in the art would be motivated to employ other well-known antihistamine (H1 receptor antagonist) desloratadine with expectation that desloratadine would provide similar properties or activities to the other known antihistamine.

### Conclusion

9. No Claim is allowed.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Kwon whose telephone number is (703)308-5377. The examiner can normally be reached Tuesday through Friday from 9:00 am to 7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marianne Seidel, can be reached on (703) 308-4725. The fax number for this Group is (703) 308-4556.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1235.

Brian Kwon

**ZOHREH FAY**  
**PRIMARY EXAMINER**  
**GROUP 1600**

A handwritten signature in black ink, appearing to read 'Zohreh Fay', written in a cursive style.